REMARKS

Claims 17-25, and 28-32 stand rejected under 35 U.S.C. 101 because the claimed invention was said to be directed to non-statutory subject matter, namely the claiming of "a carrier wave from a network". The specification has been amended to remove the subject matter that results in the claiming of "a carrier wave from a network". No new matter has been added as a result of this amendment.

Claims 1-5, 13-14, 16-25, and 28-40 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Per Cederqvist et al. (Version Management with CVS for CVS 1.11.3, 1992,1993) in view of Mansurov et al. (U.S. Patent No. 6,346,945 B1), and further in view of Deitel et al. (Java How to Program, Second Edition, Copyright 1997 & 1998, pages 1-11). Reconsideration and withdrawal of the rejections is respectfully requested in view of the above amendments and for the following reasons.

The present invention incorporates methods and systems that provide an improved software development tool, which overcomes the limitations of conventional software development tools. The improved software development tool of the present invention allows a developer to track changes made to source code, and display the source code with these changes. Accordingly, the developer can recollect the modifications that were made to the source code with the indications of the edits. Moreover the software development tool of the present invention also includes a quality assurance (QA) module that monitors the modifications to the source code and calculates the complex metrics, (i.e., the measurement of the program's performance or efficiency, to support quality assurance). The types of metrics calculated by the software development tool of the present invention include basic metrics,

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cohesion metrics, complexity metrics, coupling metrics, Halstead metrics, inheritance metrics, maximum metrics, polymorphism metrics, and ratio metrics. Examples of these metrics with their respective definitions are identified in Tables 1-9 in the specification of the present application.

The Present Invention Is Not Obvious Over The Cited References

A claimed invention may be found to have been obvious "if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." 35 U.S.C. § 103(a). Moreover, the Federal Circuit has ruled on numerous occasions that a holding of "obviousness" requires some motivation, suggestion or teaching within the cited references that would lead one skilled in the art to modify the cited reference or references as claimed by applicant. See, for example, In re Kotzab, 217 F3d 1365, 55 USPQ2d 1313 (Fed Cir. 2000):

> "Most if not all inventions arise from a combination of old elements. See In re Rouffet, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457 (Fed. Cir. 1998). Thus, every element of a claimed invention may often be found in the prior art. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. See In re Dance, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998); In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference. See B.F. Goodrich Co. v. Aircraft Breaking Sys. Corp., 72 F.3d 1577, 1582, 37 USPQ2d 1314, 1318 (Fed. Cir. 1996)."

The cited Per Cederqvist et al reference, the cited Mansurov et al patent and the cited Deitel et al reference all describe software tools. The invention described by Per Cederqvist et

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al pertains to a concurrent versioning system for tracking changes to source code. On the other hand, the Mansurov et al patent discloses a software tool for pattern-based flowcharting of source code, and the Deitel et al reference is directed towards object-oriented programming techniques. The present invention discloses methods of a novel software development tool. However, the applicant's methods, as specifically claimed, require steps that are different from and neither suggested nor taught by the cited references alone or in combination. Moreover, there is no motivation to modify the methods of the cited references to incorporate the steps claimed by the applicant, since the result would be contrary to the aims of the cited references. Accordingly, in the absence of such motivation, suggestion and teaching, the claimed invention cannot be rightfully held to have been obvious to one skilled in the art.

Specifically, as defined in claims 1, 13, 17, 22, and 29, and the claims dependent thereon, applicant's claimed methods require a step of calculating metrics selected from a group consisting of cohesion metrics, complexity metrics, coupling metrics, Halstead metrics, inheritance metrics, maximum metrics, polymorphism metrics, and maximum metrics by way of a quality assurance module which monitors the modifications to the source code.

None of the cited references teach or suggest the above underlined step. Instead, the cited references only contemplate concurrent versioning, object-oriented programming techniques, and pattern-based flowcharting of source code. Any attempt to modify the methods of the cited references to incorporate the above underlined requirements would be contrary to the teachings of the cited references.

Independent claim 33 and its dependent claims are directed to a data processing system that includes a quality assurance module which monitors the modifications to the source code and calculates metrics selected from a group consisting of basic metrics, cohesion

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metrics, complexity metrics, coupling metrics, Halstead metrics, inheritance metrics, maximum metrics, polymorphism metrics, and maximum metrics. Independent claim 40 is directed to a system for displaying versions of a source code, each version reflecting an instance in an edit history. The claimed system includes a means for calculating metrics selected from a group consisting of basic metrics, cohesion metrics, complexity metrics, coupling metrics, Halstead metrics, inheritance metrics, maximum metrics, polymorphism metrics, and maximum metrics. The cited references, alone or in combination fail to contain any teaching or suggestion of the above underlined requirements. Therefore, independent claims 33 and 40 along with their respective dependent claims cannot be deemed obvious in view of the cited prior art.

CONCLUSION

In view of the foregoing amendments and for the above reasons, it is believed that this application is now in condition for allowance. If unresolved issues remain, the Examiner is invited to telephone applicant's attorney at the number below.

Respectfully submitted,

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